

REMARKS

By this amendment, the specification has been amended to correct a typographical error and Claim 1 has been amended. Claims 1-25 are pending in the application. Each pending claim is in condition for allowance over the cited art because one or more elements of each pending claim is not disclosed, taught, or suggested by the cited art.

Claims 1-25 stand rejected under 35 U.S.C. § 103(a) as being allegedly unpatentable over U.S. Pat. No. 6,470,389 to Chung et al. ("*Chung*") in view of U.S. Pat. No. 6,067,620 to Holden et al. ("*Holden*").

The rejection is herein respectfully traversed.

The present invention includes servers that communicate with each other in a network in order to respond to client requests. In one embodiment, at least one server in the network acts as a proxy to another server in the network. In particular, the present specification discloses at page 3, lines 7-16:

"In Fig. 1B ... a proxy server 1108 is coupled to network 1104 for the purpose of providing services that complement, but are not available in, an application server 1106, which is also coupled to network 1104. Proxy servers are useful for merging functionality from different servers. For example, assume that application server 1106 offers Secure Sockets Layer functions, but not servlet capabilities, and proxy server 1108 can provide servlet functions. In this case, proxy server 1108 can act as proxy for application server 1106. Proxy server 1108 receives such requests from clients 1112A, 1112B and can respond to them. However, to carry out a response, proxy server 1108 may need a service or information from application server 1106, by communication over logical path 1110."

In contrast, *Chung* discloses a server cluster in which "each server of the cluster generally provides access to the same set of contents." (Col. 2, lines 46-47). In *Chung*, each server in a

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server cluster has a common cluster address. With this single-address image approach used in *Chung*, “all servers can accept and respond to packets having the cluster address.” (Col. 11, lines 27-31). As the servers in *Chung* all provide the same services, there is no need for one server to act as a proxy server within the server cluster of *Chung*. Indeed, the concept of a proxy server is completely absent from *Chung*.

Independent claims 6, 10, 14, 18 and 22 of the subject application all require that at least one server acts as a proxy server. *Chung* does not teach or suggest the limitations of claims 6, 10, 14, 18 or 22 as *Chung* does not disclose, teach or suggest any type of proxy server. Likewise, amended claim 1 of the subject application requires communicating a request to a second server for functions not available on the first server. As *Chung* teaches that the servers in the server cluster provide access to the same set of contents, this limitation of claim 1 is not taught or suggested by *Chung*.

Furthermore, as described in the present specification at Page 4, line 9 – Page 5, line 25, in many situations it is desirable to prevent a client from communicating with multiple servers in a single transaction. The claimed invention allows a client request to be redirected from a first server to a second server while keeping the first server in control of subsequent requests by the client for services of the second server. In one embodiment, the claimed invention accomplishes this by ensuring that the network address of the client requesting a service is not passed in the request from the proxy server to the application server unless certain conditions are met. In particular, the network address of the requesting client may be passed only if the network address of a first server is identical to the network address of the second server (i.e. the proxy server and the application server are hosted on the same computer hardware).

Unlike the present claims, the servers of the server cluster in *Chung* do not even directly communicate with each other, much less send requests from one server to another. Rather, it is

Router 32 that performs a request dispatching function. The router changes the destination IP address of each incoming IP packet of a given client request from the router address to the address of the selected server. (Col. 2, lines 58-62). *Chung* also teaches that a router may direct client requests to a dispatcher, and the dispatcher selects a particular server to process a given client request based on the result of applying a hash function to the client address.

“Server 1” and “server 2” of Fig. 4 of *Chung* is cited as teaching a first server and second server cooperating with the first server to respond to a request in which the second service request communicated to the second server includes the host network address only when the network address of the first server is identical to the network address of the second server. (Office Action, Page 2, paragraph 4). In particular, the Examiner asserts that the identical secondary network addresses of servers in a server cluster of *Chung* teaches the limitation of “communicating a second service request to the second server ... only when a first network address of the first server is identical to a second network address of the second server”.

As discussed above, the servers in *Chung* do not communicate with each other, and one server does not redirect a request to another server at any time. Therefore, the cluster server of *Chung* does not disclose, teach or suggest communicating a second service request to the second server by the first server.

Furthermore, routers and dispatchers cannot be considered to be “servers” as intended by the claims, as routers and dispatchers in *Chung* do not process requests, but merely direct requests to servers for processing. Even if a router or dispatcher could be considered to be a “server” as intended by the present claims, a router or dispatcher in *Chung* does not compare its network address to the addresses of servers in the server cluster to see if its address is identical to a server before sending a request to a server, as required by the independent claims of the present application.

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No component of the system in *Chung* - the servers, the router or the dispatcher – makes a comparison of network addresses before sending a request to a server. Therefore, *Chung* does not disclose, teach or suggest the express element of “communicating a second service request to the second server ... only when a first network address of the first server is identical to a second network address of the second server” as featured in Claim 1.

Accordingly, it is respectfully submitted that independent claims 1, 6, 10, 14, 18 and 22 are patentable over the cited art and in condition for allowance.

Claims 2-5, 7-9, 11-13, 15-17, 19-21, and 23-25 are dependent claims, each of which depends (directly or indirectly) on one of the independent claims, and is therefore allowable for the reasons given above for the claim on which it depends. In addition, each of the dependent claims introduces one or more additional limitations that independently render it patentable. However, due to the fundamental differences already identified, to expedite the positive resolution of this case a separate discussion of those limitations is not included at this time.

For the reasons set forth above, it is respectfully submitted that all of the pending claims are now in condition for allowance. Therefore, the issuance of a formal Notice of Allowance is believed next in order, and that action is most earnestly solicited.

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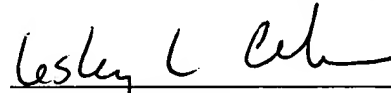
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The Examiner is respectfully requested to contact the undersigned by telephone if it is believed that such contact would further the examination of the present application. Please charge any shortages in fees to Deposit Account No. 50-1302.

Respectfully submitted,

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Dated: April 27, 2004



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on April 27, 2004

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